DOCUMENT RESUME

ED 216 385 CS 206 918

AUTHOR Mitchell, Ruth
TITLE Teaching Researchers to Write for Decisionmakers.
PUB DATE Nov 81
NOTE 12p.; Paper presented at the Annual Meeting of the Modern Language Association (96th, December 27-30, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Decision Making; Language Styles; Postsecondary Education; *Researchers; *Research Reports; *Sentence Structure; Teaching Methods; *Technical Writing; *Writing Instruction; Writing Processes; *Writing Skills
IDENTIFIERS *Audience Awareness

ABSTRACT

Researchers in many disciplines dislike writing and view it as an additional and unnecessary irritant. Teaching researchers to write for administrators who must make decisions about highly specialized topics, but who lack the specialist's knowledge, means inducing a change in the researchers' perspective. They have to learn that they are writing for intelligent laypeople who need conclusions more than discussions of method and who must be provided with interpretations. They must work on each sentence instead of assuming that the substance will dictate syntax and vocabulary. Organizationally, researchers want to drag through the old introduction, method, and results rigmarole because the structure is there and they don't have to think about it, but they need to learn to structure writing to suit the needs of the audience and the subject. They also need to learn alternate means of discussing methodology, such as presenting it in appendixes, separate papers in disciplinary journals, or sections of reports with clear indications in the introduction that they may be skipped by the decision maker. Because researchers abhor journalistic style, they must be convinced that writing can be readable without being conversational. Researchers should learn to stick as far as possible to a simple sentence structure, where the agent performs the action in a strong verb. Finally, researchers need to learn to write rough drafts and to revise. In other words, they need to learn a respect for the underlying structure of the written product. (HOD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Ruth Mitchell

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED216385

Teaching Researchers to Write for Decisionmakers

Presented in "Teaching Specialized Technical Writing Courses"

1981 MLA, New York

Ruth Mitchell, UCLA

Consider the following scenario. You are a researcher, an economist, employed by a think-tank supported by government contracts. You have been assigned the task of discovering whether the Air Force programs to rehabilitate alcoholic service people are cost-effective. You have worked on this project for months, even years, struggling with definitions of cost-effectiveness, reviewing the Air Force's records to estimate the extent of alcoholism in the service and its effect on performance, building mathematical models to compare the costs and benefits of several lengths and intensities of treatment. The problem involves not merely loss of time and effectiveness on the job, but estimating potential loss if a valuable serviceperson does not respond to the kinds of treatment the Air Force offers. After interviewing, observing, calculating, you are faced with writing. You struggle and procrastinate, but finally the report is written and it goes through at least four levels of review, including editing. Then it reaches the group of top Air Force administrators, the decisionmakers who commissioned the research in the first place. The stack of neatly bound typed pages sits on the colonel's desk, two inches above the surface. The colonel calls in an aide. "Take this and find someone to summarize it for me, could you?" he says. "I can't understand a word it says."

You, the researcher, have not failed. Your writing was exactly what you had always done in graduate school, before you were recommended by your

Copyright Ruth Mitchell 1981 ©

CS206918

professor, a consultant for the think-tank, to become a member of the team advising Air Force administration. Your research was impeccable, for the think-tank never allows unsound econometrics out of the building. It just wasn't readable by anyone except another economist. Now another researcher on the colonel's staff will struggle with the complete report and extract from it the conclusions the colonel needs, boiling down the hundreds of pages into ten at the most. And your report will become part of the archives.

This scenario (and I used that word because it's a current research favorite, borrowed from Pentagon strategists) sketches the elements of our problem here. Research is ubiquitous in our society. No government decision, whether federal, state, local, or city, is made without research. Large corporations have their own research divisions. University administrators employ researchers, their own, not the professors who pursue basic research in their departments. Environmental impact reports demand research. From entries in The Research Centers Directory (Detroit: Gale Research Company, annual), I have calculated that almost three-quarters of a million people in this country earn their living by doing research. (This number compares with fewer than 400,000 doctors in the United States, and nearly three million federal employees.) Researchers work for the Rand Corporation, the Brookings Institution, Arthur D. Little, Citicorp, Chase Manhattan Bank, and of course for every major university.

These researchers are economists, mathematicians (especially statisticians), psychologists, physicists, sociologists, computer engineers, political scientists, and anthropologists. Almost none identify themselves as writers. Yet writing is the only task they all have in common. No matter what the original assignment, and what the methods used to arrive at a

conclusion (or a nonconclusion, almost as common), and no matter whether the results were orally presented in a briefing, they all ultimately have to be written for the record.

Although it is not true that all researchers write badly, they all declare they dislike it. When the time comes to record the results, they are usually excited by new projects. They must often break off the old task and write a proposal for a new one, for the pressure never lets up to bring in revenue in the form of grants. In many research institutes, researchers are retained or let go according to the amount of money they can attract to the organization. So they're on a treadmill and writing seems an additional and unnecessary irritant.

For these reasons, researchers attempt what Peter Elbow calls The Dangerous Method--getting it right the first time. Trying to write a single perfect draft only compounds their problems, because they haven't much experience in writing and what they have is experience in the wrong kind of writing.

Being very bright people, researchers usually breezed through composition courses in college. Most of them never took a course beyond the required freshman class. Then they write exclusively for their discipline and for professors at that. They write for readers who first of all understand the jargon and the context, so that it never has to be explained, and who, second, know more about it than the writer does. In graduate school, they learned journal style. In mathematics, say Philip Davis and Reuben Hersh in The Mathematical Experience, "writing follows an unbreakable convention: to conceal any sign that the author or the intended reader is a human being. It gives the impression that, from the stated definitions, the desired results follow infallibly by a purely mechanical procedure"

(p. 36). As all art aspires to the condition of music, science aspires to mathematics, for the attitude to writing described here is adopted as closely as possible by social and physical scientists alike. A traditional order has evolved for journal articles: abstract, introduction, method, results, discussion, and perhaps appendices. This order is so unnatural that habituees read the abstract, skim the method and go straight to the discussion. They only read the article in the order printed if it is their own.

No wonder then that a researcher so often produces writing that can only be read by other researchers. He hasn't had any training for understanding that a reader may have other needs, qualifications, and experience than those of his colleagues. But writing for decisionmakers is essentially writing for such an audience. The researcher cannot avoid it, for the decisionmaker pays the piper. Too often he has to pay another musician to interpret the tune.

Researchers are specialists who are highly trained in a scientific or technical area. Who are the decisionmakers? They are administrators who must make decisions about highly specialized topics but who lack the specialist's knowledge. They must rely on researchers to explain alternatives so that then they can weigh that information against political concerns and make a sound decision. Of course they can't decide without understanding how technical complexities will affect the available decisions. You are in the decisionmaker's position when you are deciding, let's say, between buying a word-processor and buying an Apple computer which includes an editing program. Because you aren't an expert, you have to rely on the information you can extract from sales brochures, from sales representatives, from friends who have both machines, and from published consumer research. In

addition, you have to reconcile considerations of cost effectiveness with your own political situation--your wife writes reviews for the local newspaper but your eleven-year-old son is a budding mathematical genius. The information you need must be as full as possible, because you might make a costly error if you didn't realize that microcomputers can produce highly readable copy with the addition of a good printer.

Teaching researchers how to write for decisionmakers, then, means inducing multiple changes in perspective. Researchers have to learn that they are writing for intelligent laymen (Ph.D.s in another discipline, I usually say) who need conclusions more than discussions of method and must be provided with interpretations. They also need to reevaluate not only how they write but the importance of the product both for themselves and for the reader. They must work on each sentence instead of assuming that the substance will dictate syntax and vocabulary. And they must rethink the nature of writing.

This last change in perspective affects me as writing instructor. The general public, which has not yet caught up with the new image of writing and writing teachers, still sees us as error-hunting old biddies. One institute director told me that he'd know I succeeded with my courses when old Harry stopped using "hopefully" incorrectly. I explained that I set my sights much higher and would leave matters like that to the house editors who--hopefully--wouldn't worry either. First sessions of courses for me build a new model of writing as a subject of instruction. No errors will be noted, no nits picked. I will not explain the difference between "that" and "which." It may be disgraceful that Ph.D.s can't write sentences without subject-verb agreement errors, but the correction of the error won't do much for a lousy sentence. I teach rewriting, rethinking, and close reading.

For researchers are speed readers and don't notice what they are reading. The problem is of course that you can't speed write. To produce readable, concise, efficient prose, it is necessary to read both the surface and the substance of what you write. A good deal of time in my courses is spent reading aloud and considering exactly what is going on in participants' prose. Many find this the most valuable part of the course, because for the first time they experience a level of writing they had only been vaguely aware of before. They discover the stance they are adopting before their audience--lecturing, pleading, preaching, defending, advocating, even fighting. Perhaps the most desirable rhetorical action is explaining in a formal yet cordial tone.

In order to attain this civilized voice, the researcher must understand that he is engaged in a two-way conversation--good explanation responds to anticipated questions--and that he must consider his reader's needs above his own. This change in perspective takes place on two levels, overall organization and sentence level.

Organizationally, researchers want to drag through the old introduction, method, results, rigmarole because the structure is there and they don't have to think about it. In this order, which must have evolved because it reproduces the researcher's process in going about his task, the meat of the matter is delayed to the end. The order exactly reverses the normal reading order established by psycholinguistic research. A reader needs a general statement which will guide him throughout the rest of the piece and enable him to build details into a frame. The order should be deductive, top-down, not the opposite. That means, oh, horror, putting the conclusions up front. The introduction to the report should present the problem and then immediately state what has been done about it. The introduction should answer the

question "What?" so that the reader will be moved to ask "Good Lord! how did they get that?" and thus be motivated to read the rest. And the reader will understand the rest because he knows what it all pertains to.

Journal articles are written with a dim and perverse understanding of this need on the reader's part to understand the main point at once because they are provided with abstracts. An abstract doesn't belong to the body of the article--it is usually printed in a different type to emphasize its separateness--but it does include the summarized results. (Or it should. There are authors who deliberately write descriptive not substantive abstracts concealing the results and, they hope, forcing the reader to read the whole article.) Abstracts are a grudging concession to readers' needs, although they could be met more effectively with a functional introduction.

A well-written research report does not follow a prepackaged plan. It is organized to suit the needs of the audience and the subject. Researchers dearly love formulae and resist being urged to use their own judgment. They would like to know when to include a "background" section and when not to, and exactly how much. Like all neophyte writers, they cannot bear to waste anything they have written. They accept unwillingly the hard truth that a successful piece of writing for decisionmakers resembles the top one-tenth of the iceberg, with the other nine-tenths submerged in appendices or even in their own files.

They are especially protective of their methodological sections. Method is of course a matter of extreme professional importance to them. No data has any value if it is produced by suspect methods. But methodology (which by the way is a word often used instead of the simple plural "methods") is taken for granted by decisionmakers. They trust the organizations they contract with and do not worry about matters they are not qualified to judge.

Researchers want to justify their methods to their peers and they do so exhaustively. The preoccupation of researchers with method resembles the love English scholars have for prose style. In each case, lay people are interested in substance; they want to know what happened. Researchers have to be given alternate means of discussing methodology--appendices, separate papers in disciplinary journals, sections of reports with clear indications in the introduction that they may be skipped by the decisionmaker.

Just as they have to be diverted from their love of methodological discussion, researchers have to be pushed into interpretation. Again, their professional training and pride cause them to prefer displays of data, accumulations of fact, rather than interpretation, which necessarily involves value judgments. But the decisionmaker needs to be told what it all means and how he can use the information. To return to the initial example, the Air Force colonel wants more than a set of tables documenting the costs and benefits of different lengths of treatment time and treatment methods--he wants to understand which treatments are likely to cause least social embarrassment and promote most good will towards the Air Force as well. A highly cost-effective treatment which no one will take is of no use to him. He needs a research report which takes into account the complexities of choices facing him. They should be in the form of hypothetical outcomes: if you decide on this, then you are likely to spend a good deal of money but not cause too much of this kind of damage; if you decide on that, then there will be a corresponding trade-off.

The common ground the researcher and the decisionmaker share is logic. The researcher is obliged to explain in purely logical terms, setting his results into a context that he shares with the decisionmaker. John Kenneth Galbraith has declared that inability to explain complex ideas is not

attributable to their irreducible knottiness but to lack of expository skill. He further believes that experts pride themselves on their impenetrable writing as a means to exclude the uninitiated. No matter what the motivation, it is certainly easier to write as if the only relationship were the one between the writer and the material. It takes a measure of creativity to find those illuminating metaphors which clarify an abstruse subject. We are asking researchers to become writers, although they didn't expect it from their job descriptions.

Translated to the sentence level, the change in perspective means adjusting to a style that sounds human. Because researchers abhor a journalistic style (journalists have a bad reputation for distorting research and are not to be held up as models), they must be convinced that writing can be readable without being conversational. I have mentioned that I ask them to read aloud. The technique makes my point without my having to insist on it, for overstuffed, impersonal sentences, heavy with abstractions, are hard to read and cause stumbling. (Joseph Williams has found that they are also hard to type--an economic reason for learning to write sentences human beings might utter.) Here are a couple of examples:

> The observation of low wages despite inelastic labor demand may be a reflection of low bargaining power rather than a strong preference for employment.

> Detailed analysis shows that the resource costs of an incentive policy would be higher than under mandatory controls that require solvent users to employ equipment that prevents emissions, but most other CFC users would find resource costs to be lower under economic incentives than under the alternative mandatory controls they would be required to meet.

Sentences like these have to be unpacked, so that we know what the writer was trying to say, and then recoded into easily assimilable sentences where the sense unfolds at an even pace. The aim of good decisionmaker

writing, as of all practical writing, should be one-time readability. Busy people haven't time to reprocess sentence after sentence. And sentences are the basic building blocks of good style.

Researchers should learn to stick as far as possible to a simple sentence structure, where the agent performs the action in a strong verb. There are several reasons for their love of the passive voice--its impersonality, its focus on the action not the agent, its respectability. They will cling to this last despite the fact that no house editor I have met ever prohibits the use of "I" or "we." Myths persist. (Even journal editors complain about excessive formality, although they will change personal pronouns back to passive forms, as if by reflex.) There is a yet more penetrating reason, I suspect. We who were trained in literature recognize a good style because we chose our professions to enjoy it. Researchers do not read much good prose in their work and they do not regard their leisure reading as providing them with models. They have an almost puritanical distrust of pleasure in prose. Without wishing to sell them on the joy of writing (it's hard enough to get them to spend time on it, let alone enjoy it), one can hint that short, easily understood, sprightly sentences are more likely to induce the complete reading of a document.

A last perspective change has little to do with the product on the page, but everything to do with increased ability to write easily, both for writer and reader. Researchers do not understand the cognitive benefits of writing. If you are not in the habit of writing, it is hard to appreciate how much writing about a topic enhances understanding. Because they want writing to be done in one final shot after the research has been concluded, researchers are missing the benefits of process. I urge them to write rough drafts at each stage of the study, so that they will not be faced with blank sheets

when they begin to write, but will be able to revise material already on the page.

So a writing course for researchers who must communicate their results to decisionmakers is not merely a matter of teaching them how to shorten sentences, rearrange paragraphs, exploit visual devices, put the message up front, cut out everything that isn't absolutely necessary. These are only the nuts and bolts of the course. The underlying structure is a respect for writing, for its power and its glory.